Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Fidelity Exploration and Production Company
Well Name/Number: Fee/Coffee 31-2H
Location: NW NE Section 2 T10N R33E
County: Rosebud**, MT; Field (or Wildcat)** W/C

Air Quality

(possible concerns)
Long drilling time: No, 20 to 30 days drilling time.
Unusually deep drilling (high horsepower rig): No, a triple drilling rig to drill a vertical pilot hole to the Otter Formation, 5180' TD. Then plug back and drill to 9,657'MD/4885' TVD single lateral horizontal Heath Formation well test.
Possible H2S gas production: Slight H2S possible.
In/near Class I air quality area: No class I air quality area, in the area of review.
Air quality permit for flaring/venting (if productive) Yes, DEQ air quality permit required under 75-2-211.

Mitigation:
X Air quality permit (AQB review)
__ Gas plants/pipelines available for sour gas
__ Special equipment/procedures requirements
__ Other:_____

Comments: No special concerns – using a triple drilling rig to drill a vertical pilot hole to the Otter Formation, 5180' TD. Then plug back and drill to 9,657'MD/4885' TVD single lateral horizontal Heath Formation well test. No gas gathering system exists in this area. Associated sweet gas and H2S gas can be flared under Board Rule 36.22.1220, if no gathering systems are in close proximity to this well.

Water Quality

(possible concerns)

Salt/oil based mud: No, surface hole will be drilled with freshwater. Main hole will be drilled with freshwater and freshwater drilling mud. Horizontal lateral will be drilled with freshwater mud system.
High water table: No high water table in the area of review.
Surface drainage leads to live water: No, closest drainage is an unamed ephemeral tributary drainage to Rattlesnake Creek, also an ephemeral drainage, about adjacent to this well location to the north from this location.
Water well contamination: No, closest water wells are further than mile from this location in any direction. This well will drill and set 9 5/8" surface casing to 600' and cement to surface. Well will be drill with freshwater based drilling fluids from base of surface casing and pilot hole to a TD of 5180', into the Otter Formation. Well will be plugged back and kicked off horizontally into the Heath Formation. 7" intermediate string will be set and cemented through the curve. A 6 1/8" hole will be drilled with freshwater in the horizontal lateral out from under the 7" intermediate casing string to 9,657'MD/4885' TVD and 4 ½" casing liner will be run.
Porous/permeable soils: No, silty "Gumbo" clay soils.

Class I stream drainage: No Class I stream drainages.

Mitigation:

___ Lined reserve pit
_X_ Adequate surface casing
__ Berms/dykes, re-routed drainage
_X_ Closed mud system
_X_ Off-site disposal of solids/liquids (in approved facility)
_X_ Other: Drill cuttings will be buried in the lined cuttings pit and mixed off with dry subsoil. Cuttings pit will be closed when dry. A minimum of four feet (4') dry subsoil and topsoil will cover the cuttings pit

Comments: Freshwater mud system to be used on surface hole. Freshwater mud system will be used out from under surface casing to 5180' TD pilot hole. Freshwater drilling fluids will be used to drill the horizontal lateral to 9,657'MD/4885' TVD. Fluids in the lined reserve pit will be trucked to a permitted Class II Disposal. The cuttings pit will be allowed to dry and then backfilled with at least 4' of cover. No concerns.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: No live water stream crossings. Crossing only ephemeral drainages.
High erosion potential: No, moderate cut, up to 16.1' and small fill, up to 4.6', required.
Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.
Unusually large wellsite: No, a large location, 420X420' size required.
Damage to improvements: Slight, surface use is grass and sagebrush range land.
Conflict with existing land use/values: Slight

Mitigation

__ Avoid improvements (topographic tolerance)
__ Exception location requested
_X_ Stockpile topsoil
__ Stream Crossing Permit (other agency review)
_X_ Reclaim unused part of wellsite if productive
__ Special construction methods to enhance reclamation
X Other: Requires DEQ General Permit for Storm Water Discharge Associated with Construction Activity, under ARM 17.30.1102(28).

Comments: Access will be from existing county road, Sumatra Road and existing ranch road. About 1/8 of a mile of new road will be constructed into this location off the existing ranch road. Freshwater drill cuttings and mud solids will be buried in the lined pit. Lined pit will backfilled with 4' of cover when dry. Drilling fluids will be trucked to a Class II Disposal around Sidney, Montana. No concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residence is about 3 miles to the south southwest from this location. The town of Sumatra, Montana is about 3 miles to the south southwest from this location.
Possibility of H2S: Yes, slight chance of H2S.
Size of rig/length of drilling time: Triple derrick drilling rig, about 20 to 30 days drilling time.

Mitigation:

_X_ Proper BOP equipment
__ Topographic sound barriers
__ H2S contingency and/or evacuation plan
__ Special equipment/procedures requirements
__ Other:_____

Comments: Operational BOP and adequate surface casing should mitigate any problems. No concerns.

Wildlife/recreation

(possible concerns)
Proximity to sensitive wildlife areas (DFWP identified): None identified.
Proximity to recreation sites: None identified.
Creation of new access to wildlife habitat: No
Conflict with game range/refuge management: No
Threatened or endangered Species: Threatened or endangered species identified in this county are the Pallid Sturgeon, Interior Least Tern and the Black-Footed Ferret. Candidate species is the Greater Sage-Grouse and Sprague's Pipit. NH tracker website lists two (2) "Species of Concern" in T10N R33E. They are the Black-tailed Prairie Dog and Greater Sage-Grouse.

Mitigation:
__ Avoidance (topographic tolerance/exception)
__ Other agency review (DFWP, federal agencies, DSL)
__ Screening/fencing of pits, drillsite
__ Other:_____

Comments: Private surface grazing land. There maybe species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done, if a species of concern is discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands.

Historical/Cultural/Paleontological

(possible concerns)
Proximity to known sites None identified.

Mitigation
__ avoidance (topographic tolerance, location exception)
__ other agency review (SHPO, DSL, federal agencies)
__ Other:_____

Comments: Private surface grazing land. There maybe possible historical/cultural/paleontological sites that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to his desires to preserve these sites or not, if they are found during construction of the wellsite. The Board of Oil & Gas has no jurisdiction over private surface lands.

Social/Economic

(possible concerns)
__ Substantial effect on tax base
__ Create demand for new governmental services
__ Population increase or relocation

Comments: Well is a wildcat, until production is established, no social or economic impact can be assessed.

Remarks or Special Concerns for this site

Well is to be drilled vertical pilot hole to the Otter Otter Formation, 5180' TD. Then plug back and drill to 9,657'MD/4885' TVD.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/Steven Sasaki
(title:) Chief Field Inspector
Date: February 2, 2012

Other Persons Contacted:

Montana Bureau of Mines and Geology GWIC website
(Name and Agency)
Rosebud County water wells
(subject discussed)
February 2, 2012
(date)

US Fish and Wildlife, Region 6 website
(Name and Agency)
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES
MONTANA COUNTIES, Rosebud County
(subject discussed)

February 2, 2012
(date)

Montana Natural Heritage Program Website (FWP)
(Name and Agency)
Heritage State Rank= S1, S2, S3, T10N R33E
(subject discussed)

February 2, 2012
(date)

If location was inspected before permit approval:
Inspection date: _____
Inspector: __ _____
Others present during inspection: __ _____